

DECISION - BOARD OF APPEAL CASE NO. 15-16

APPLICANT

Atrex Energy, Inc.

LOCATION OF PROPERTY INVOLVED:

**19 Walpole Park South
Walpole Assessors Map 54, Parcel 4**

APPLICATION:

The grant of a Special Permit under but not limited to Section 12: 3.C.(2) of the Zoning By-Laws to allow those activities allowed in the underlying zoning district that involve the handling of toxic or hazardous materials (Nickel Oxide) in amounts greater than normal household quantities.

On September 14, 2016, continued to January 18, 2017, a Public Hearing was held, in the Main Meeting Room of Town Hall for the purpose of receiving information and voting upon a decision as to granting of the Special Permits requested. The members who were present and voting:

Matthew Zucker, Chairman
James DeCelle, Vice Chairman
Craig W. Hiltz, Clerk
Timothy C. Foley, Member

VOTE OF THE BOARD:

A motion was made by Mr. DeCelle and seconded by Mr. Hiltz, that the Board grant Atrex Energy, Inc. a Special Permit under Section 12: 3.C.(2) of the Zoning By-Laws to allow the activities allowed in the underlying zoning district that involve the handling of toxic or hazardous materials (Nickel Oxide) in amounts greater than normal household quantities.

The vote was 4-0-0 in favor (Zucker, DeCelle, Hiltz, Foley, voting); therefore the Special Permit under Section 12:3.C.(2) is hereby granted, subject to the following conditions:

1. A point of use extraction system to an external dust collector (a 55-gallon steel drum or other appropriate container) shall be used to contain dust and avoid the material being released to the interior of the building.

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2. The nickel oxide shall be stored in a closed room with no floor drains and have a secondary containment that can contain 110% of the product in case all of the primary containers are all punctured at the same time.
3. Spill kits shall be located in key areas.
4. All hazardous waste is to be removed by a Massachusetts DEP-licensed Hazardous Waste Transporter and taken to a Massachusetts DEP-licensed receiving/disposal facility.
5. The amount of nickel oxide stored on-site at any given time is limited to 1,000 kg.
6. A sketch showing locations and approximate floor elevation of its hazardous materials shall be submitted to the Fire Department and said sketch shall be updated as necessary.
7. An inventory of toxic and hazardous materials in excess of household quantities shall be submitted to the Building Inspector annually on the anniversary of the granting of this Special Permit.
8. Any deliveries of nickel oxide in amounts greater than household quantities shall be made in common carrier trucks designed to properly utilize the loading dock in order to minimize the risk of spillage during the delivery process.
9. As part of the existing annual groundwater monitoring program, typically completed in April of each year, a groundwater sample will be collected from monitoring well MW-4 and analyzed for dissolved nickel.

REASONS FOR DECISION

It is the finding of the Board that, as conditioned above, the Applicant was able to meet the requirements of Section 12 to allow the use and storage of nickel oxide in greater than household quantities as conditioned above. The Board finds that this grant of a Special Permit allows a business to continue to operate at 19 Walpole Park South in a safer manner with less risk to the Town water supply and its employees, which follows the intent of, the Highway Business District and the Water Resource Protection Overlay District (Area 3). Accordingly, the Board has determined that the Special Permits requested are warranted.

FURTHER FINDINGS

Section 2: Administration, 2. Special Permits, B. Finding and Determination required that:

(1) Prior to granting a special permit, the SPGA shall make a finding and determination that the proposed use, building, structure, sign, parking facility or other activity which is the subject of the application for the special permit:

- (a) does and shall comply with such criteria or standards as shall be set forth in the section of this Bylaw which refers to the granting of the requested special permit;**

The Board finds that the proposed request complies with all of the criteria and standards set forth in Section 12 as follows:

- (1) **12: 4.A.(1). All requirements for Full Site Plan Review as listed in Section 13 of the Zoning By-Law. An applicant for a Special Permit may apply for waivers from specific Site Plan Review requirements that may not be relevant to the proposed use.**

The Board finds that the Applicant is a tenant in an existing building which is constructed in accordance with a Site Plan approved by the Planning Board as Case No. 2002-01 dated March 28, 2002. No work is proposed that would trigger a new Site Plan Review. As such, the requirements of Section 13 of the Zoning By-Law are not applicable.

- (2) **12: 4.A.(2). A list of applicable Special Permit trigger(s) associated with the use as identifiable in Subsection 12.3.C of this Bylaw.**

The Board finds that as submitted with the application, the trigger for this Special Permit request is as follows: 12.3:C.(2) Activities allowed in the underlying zoning district that involve the handling of toxic or hazardous materials in amounts greater than household quantities.

- (3) **12:4.A.(3). A complete list of all chemicals, pesticides, fuels, and other potentially toxic or hazardous materials to be used or stored on the premises in amounts greater than normal household quantities.**

Item No.	Name	Quantity
1.	Nickel Oxide Powder	1,000 Kg

NOTE: the Nickel Oxide MSDS was submitted with the Application. Further, Applicant has submitted and received approval for other chemicals under Special Permit No. 04-02.

- (4) **12:4.A.(4). A description of measures proposed to protect all storage containers/facilities from vandalism, corrosion, and leakage, and to provide for control of spills.**

The Board finds that the Applicant is using a blended mixture of yttria stabilized zirconia (YSZ) and nickel oxide at a ratio of 35/65%, respectively, which is delivered to the applicant for processing into a tube. This material forms the basis of the Applicant's solid oxide fuel cell technology. The mixture is first blended in a cone blender and sieved to increase homogeneity of the delivered material. The cone blender and sieve are closed systems which have extraction directly above for powder transfer in to a sealed 5-gallon plastic pail ready for pressing. These operations take place in a secure 14 x 20 ft. room which is also the proposed location for storage of the powder.

The subsequent manufacturing process involves filling a mold with the blended material, followed by pressing into a tube. Pressing of the tube takes place in an area directly adjacent to the proposed powder storage area. All processes which involve powder handling have a

point-of-use extraction system connected to an externally-located dust collector to contain dust and avoid the material being released to the interior of the building. The tube is then put in to a furnace for firing and densification, after which, a series of coatings and further firings are used to fabricate the finished product.

The proposed location for storage of the blended mixture of YSZ and nickel oxide is the 14 ft. x 20 ft. secure room noted above and shown on the attached floor plan. The room has good point of use extraction over the blender and sieve equipment which is connected to a dust collector. The room does not contain a floor drain and is directly adjacent to the area where the powder is pressed into tubes; see attached floor plan for the isopress location. The isopress area does not have a floor drain. Secondary containment to volumes over 110% will be implemented for the proposed storage volumes of the blended YSZ and nickel oxide material. This secondary containment for the pails will be similar to the container below which is fabricated from HDPE and will provide a second line of defense from not only accidental pail fracture but also water resulting from fire suppression measures in the event of a fire. This type of container will hold multiple pails. The Applicant submitted a picture of this type of container with its Application.

Currently all storage containers used for chemicals are sealed and are kept inside 19 Walpole Park South, and the external doors to that space remain locked at all times with access controlled via key cards issued only to the Applicant's employees. All materials are stored in chemical-appropriate containers to mitigate corrosion and leakage. Spill kits are located in areas where larger volumes of chemicals are used and stored. Where appropriate, 55-gallon drums are located on spill pads or similar devices so that in the event of an inadvertent release the material would be contained in the immediate area of the drum. Propane and methane gas cylinders are stored in a locked cage system with restricted access, located outside and adjacent to the building.

As set forth above the Board is incorporating the comments from the Board of Health as conditions of approval.

(5) 12: 4.A.(5). A description of potentially toxic or hazardous wastes to be generated, indicating storage and disposal methods.

The Board finds that the nickel oxide is used in a manufacturing process with a point-of-use extraction system, connected to an externally-located dust collector, to contain dust and avoid the material being released to the interior of the building. The waste powder is collected below the dust collector in a 55-gallon steel drum which is located outside and adjacent to the building in locked fenced off area. Currently, the applicant contracts with Clean Harbors to remove the waste on a nominal biyearly basis. Note: the Applicant is registered with the State as a Very Small Quantity Generator.

Secondary containment for material collected at the dust collector will utilize a salvage drum which is an outer container originally designed to be greater than, or equal to the construction and performance specifics of an inner container and specified to hold greater than 110% of the internal 55-gallon steel drum volume.

Again as set forth above, the Board has incorporated the relevant comments from the Board of Health as conditions of approval.

(6) 12:4.A.(6). A plan showing the storage location and, where storage is indoors, approximate floor elevation of any storage facilities for toxic or hazardous materials, fertilizers and waste.

The Board finds that the plan submitted with the Application satisfy this criterion.

- (7) **12: 4.A.(7). Where applicable, typical schematic profile for any storage facility or structure designed to contain potential spills.**

The Board finds that as the quantities of materials stored in the building are relatively small, and most of what is stored is in solid form such that there are no storage facilities in the building or structures required to contain potential spills. As noted for Section 4.A. (4), where appropriate 55-gallon drums are located on spill pads or similar devices so that in the unlikely event of an inadvertent release the material would be contained in the immediate area of the drum. Spill kits are located in these areas for use in the unlikely event of an inadvertent release.

- (8) **12: 4.A. (8). Evidence of approval by the Massachusetts Department of Environmental Protection (DEP) of any industrial waste treatment or disposal system or any wastewater treatment system over fifteen thousand (15,000) gallons per day capacity.**

The Board finds that there will be no uses that will generate industrial waste or wastewater over 15,000 gallons a day. Therefore, there is no requirement for Massachusetts Department of Environmental Protection (DEP) approval of a treatment or disposal system and as such this requirement is not applicable.

- (9) **12: 4.A.(9). For underground storage of toxic or hazardous materials, evidence of qualified professional supervision of system design and installation.**

The Board finds that there will not be any underground storage of toxic or hazardous materials. The Applicant submits that its employees will be made aware of the Zoning By-Laws and the restrictions found therein, and of the requirement to adhere to the same.

- (10) **12: 4.A.(10). Where applicable, all necessary engineering reports that demonstrate compliance with the Massachusetts Stormwater Policy as amended.**

The Board finds that Stormwater is controlled in accordance with the Site Plan and no changes are being proposed. As such, this requirement is not applicable.

- (11) **12: 4.A.(11). Where applicable, a description of the phasing of earth removal and replacement.**

The Board finds that the requested Special Permit does not require phased earth removal or replacement. Therefore, this requirement is not applicable to the requested Special Permit.

- (12) **12: 4.A.(12). Analysis by a technically qualified expert, such as a registered professional engineer, certifying that the integrity of the groundwater resources will not be degraded.**

The Board finds that the letters submitted with the Application and during the Public Hearing by Mr. Raymond C. Johnson, PG, SLP, Senior Vice President, Tetra Tech, Inc. dated July 12, 2016, July 29, 2016, and November 29, 2016 satisfy this requirement.

- (b) shall not have vehicular and pedestrian traffic of a type and quantity so as to adversely affect the immediate neighborhood;**

The Board finds that there is no change in vehicular or pedestrian traffic associated with the requested Special Permit. As such, this criterion is satisfied.

- (c) shall not have a number of residents, employees, customers, or visitors, so as to adversely affect the immediate neighborhood;**

The Board finds that as it is a commercial business there are no residents associated with this Special Permit. Additionally, there is no change in the number of employees, customers, or visitors vehicular or pedestrian traffic associated with the requested Special Permit. As such, there is no adverse effect on the neighborhood and this criterion is satisfied.

- (d) shall comply with the dimensional requirements applicable to zoning district in which the premises is located, including, without limitation, the applicable lot coverage and buffer zone requirements in Section 5-G;**

The Board finds that the Applicant is located within an existing building constructed in accordance with an approved Site Plan and building permit. There are no changes to the building, lot coverage, or buffer zone. Accordingly, this criterion is satisfied.

- (e) shall not be dangerous to the immediate neighborhood of the premises through fire, explosion, emission of wastes, or other causes;**

The Board finds that as described in the letters submitted by Mr. Raymond C. Johnson, PG, SLP, Senior Vice President, Tetra Tech, Inc. dated July 12, 2016, July 29, 2016, and November 29, 2016, nickel oxide that is handled subject to the listed conditions does not pose a danger to the neighborhood or premises through fire, explosion, emission of wastes, or other causes. The fire department reviewed the submission and did not have any issue with the same. Therefore, this criterion is satisfied.

- (f) shall not create such noise, vibration, dust, heat, smoke, fumes, odor, glare or other nuisance or serious hazard so as to adversely affect the immediate neighborhood;**

The Board finds that as described in the letters submitted by Mr. Raymond C. Johnson, PG, SLP, Senior Vice President, Tetra Tech, Inc. dated July 12, 2016, July 29, 2016, and November 29, 2016, the use of nickel oxide that is handled subject to the listed conditions does not create noise, vibration, dust, heat, smoke, fumes, odor, glare, or other nuisance or serious hazard to the neighborhood. The fire department has reviewed the submission and did not have any issue with the same. Therefore, this criterion is satisfied.

- (g) shall not adversely effect the character of the immediate neighborhood; and**

The Board finds that the Applicant is an on-going business within an industrial subdivision. The Applicant is requesting the present Special Permit to better streamline its business as well as better protect the watershed and its employees. The granting of the Special Permit will not affect the character of the immediate neighborhood in any way. As such, this

criterion is satisfied.

- (h) shall not be incompatible with the purpose of the zoning Bylaw or the purpose of the zoning district in which the premises is located.**

The Board finds that granting the requested Special Permit will encourage an existing business to remain in Walpole. As the business is located entirely within the Highway Business District, this action is entirely compatible with the purpose of the Zoning Bylaw, which satisfies this criterion.

Section 12:4.D sets forth potential conditions for the issuance of a Special Permit.

- (a) Special Permit Condition 12.4.D (1). That proper and reasonable surface drainage of the land shall be provided during and after construction.**

The Board finds that drainage was properly addressed through the Site Plan Approval process when the building was constructed and that there is an operations and maintenance agreement covering the entire subdivision. As such, this condition is not applicable to this Special Permit.

- (b) Special Permit Condition 12.4.D (2). That pervious areas that have been compacted by heavy machinery shall be sacrificed to a depth of at least six (6) inches before topsoil is replaced.**

The Board finds that this condition is inapplicable as there will be no compacting of pervious areas due to heavy machinery as there will be no construction on the Site in conjunction with the Application.

- (c) Special Permit Condition 12.4.D(3). That activities ancillary to the excavation, including, but not limited to, non-routine equipment and vehicle maintenance and storage of lubricants, fuels, solvents and other chemicals associated with earth removal operations shall be prohibited in the WRPOD.**

The Board finds that there will be no earth removal on Site and, therefore, this condition is not applicable.

- (d) Special Permit Condition 12.4.D.(4). Any fill material used in the WRPOD shall contain no solid waste, toxic, hazardous materials, or hazardous waste. The SPGA may require testing of two soil samples by a certified laboratory at the applicant's expense.**

The Board finds that there will be no fill used at the Site as there is no construction and therefore this condition is not applicable.

- (e) Special Permit Condition 12.4.D (5). Periodic inventories of toxic and hazardous materials in excess of household quantities shall be submitted to the Building Inspector at a frequency no greater than twice each year.**

The Board finds that the Applicant stipulated that it will provide an inventory of toxic and

hazardous materials, inclusive of nickel oxide, in excess of household quantities to the Building Inspector annually on the anniversary of the granting of this Special Permit. This stipulation has been included as a condition of approval. Therefore, this condition is satisfied.

CONSISTENCY

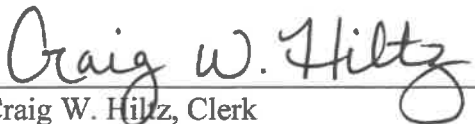
This decision is consistent with the purpose and intent of the Zoning Bylaw.

Said Special Permit is granted pursuant to Massachusetts General Law c. 40A § 9 which provides in pertinent part as follows: "...Zoning ordinances or by-laws shall provide that a special permit granted under this section shall lapse within a specified period of time, not more than two years, which shall not include such time required to pursue or await the determination of an appeal referred to in section seventeen, from the grant thereof, if a substantial use thereof has not sooner commenced except for good cause or, in the case of permit for construction, if construction has not begun by such date except for good cause."

Massachusetts General Laws c. 40A, §11 provides in pertinent part as follows: "A special permit, or any extension, modification or renewal thereof, shall not take effect until a copy of the decision bearing the certification of the city or town clerk that 20 days have elapsed after the decision has been filed in the office of the city or town clerk and either that no appeal has been filed or the appeal has been filed within such time, or if it is a special permit which has been approved by reason of the failure of the permit granting authority or special permit granting authority to act thereon within the time prescribed, a copy of the application for the special permit-accompanied by the certification of the city or town clerk stating the fact that the permit granting authority or special permit granting authority failed to act within the time prescribed, and whether or not an appeal has been filed within that time, and that the grant of the application resulting from the failure to act has become final, is recorded in the registry of deeds for the county and district in which the land is located and indexed in the grantor index under the name of the owner of record or is recorded and noted on the owner's certificate of title. The person exercising rights under a duly appealed special permit does so at risk that a court will reverse the permit and that any construction performed under the permit may be ordered undone. This section shall in no event terminate or shorten the tolling, during the pendency of any appeals, of the 6 month periods provided under the second paragraph of section 6. The fee for recording or registering shall be paid by the owner or applicant."

APPEALS FROM THIS DECISION FOR A SPECIAL PERMIT, IF ANY, SHALL BE MADE PURSUANT TO MASSACHUSETTS GENERAL LAWS CHAPTER 40A, SECTION 17, AND SHALL BE FILED WITHIN TWENTY DAYS AFTER THE DATE OF FILING OF THE NOTICE OF DECISION IN THE OFFICE OF THE CITY OR TOWN CLERK.

WALPOLE ZONING BOARD OF APPEALS


Craig W. Hiltz, Clerk

am

cc: Town Clerk Engineering Planning Board
Board of Selectmen Building Inspector Conservation Commission

This decision was made on January 18, 2017 and filed with the Town Clerk on February 1, 2017.